IPT Product Evaluation Survey Report

July 19-20, 2000

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NRL Monterey

May 23, 2001

Survey Form:

- 33 Product Examples:
  - 5 Data Display
  - 14 Product Examples
  - 7 Display Methods
  - 3 Interface Examples
  - 3 Verification Examples
  - 1 Other
- Each Product
  - For different customers
  - Excellent, Good, Fair, Poor (4 to 1 pts)
  - Comments

Survey Form:

- 15 Participants Returned Survey:
  for each example
  7 METOC Personnel
  6 Warfighters

- Each Product
  Different users want different products
  Each return had its own scale
  Some interesting points have emerged

General Comments from the Survey:

- Not all products are for all the users (folders idea).
- As a tactical overlay: METOC Information should be integrated with tactical information (e.g. JTIDS, COP, PFPS, JMPS). Needs ship position.
- Bandwidth issue needs to be addressed. It won't do any good, if we can't deliver the product to the users.
- Some of the products are too busy and

General Warfighter Comments from the Survey:

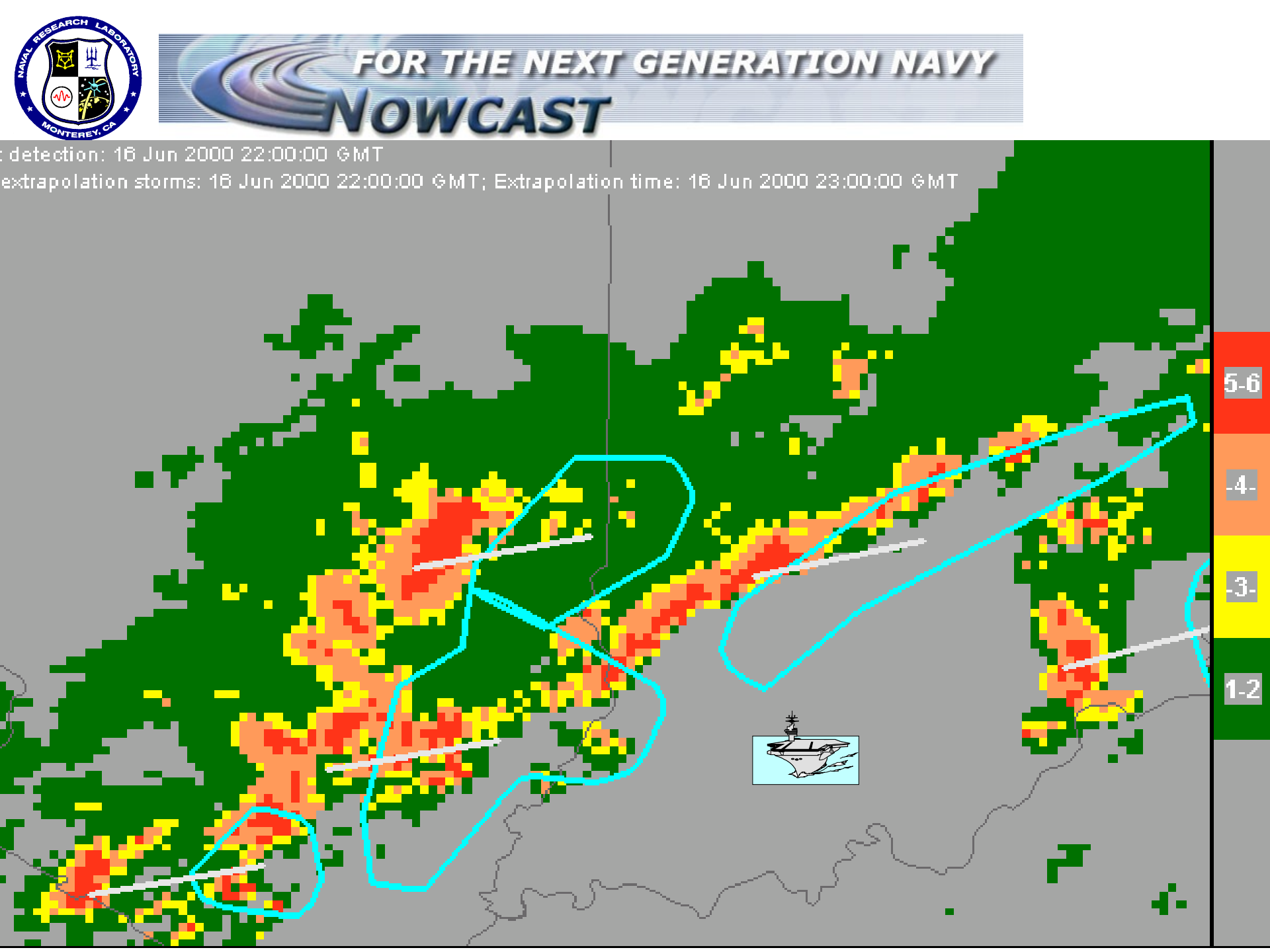
- Products should show information directly. Avoid drill-down if possible.
- Should consider the 2.5D visualization. It may be better than 3D.
- Adhere to convention of the MS windows headers (e.g. File, Edit. . .)

General METOC Personnel Comments from the Survey:

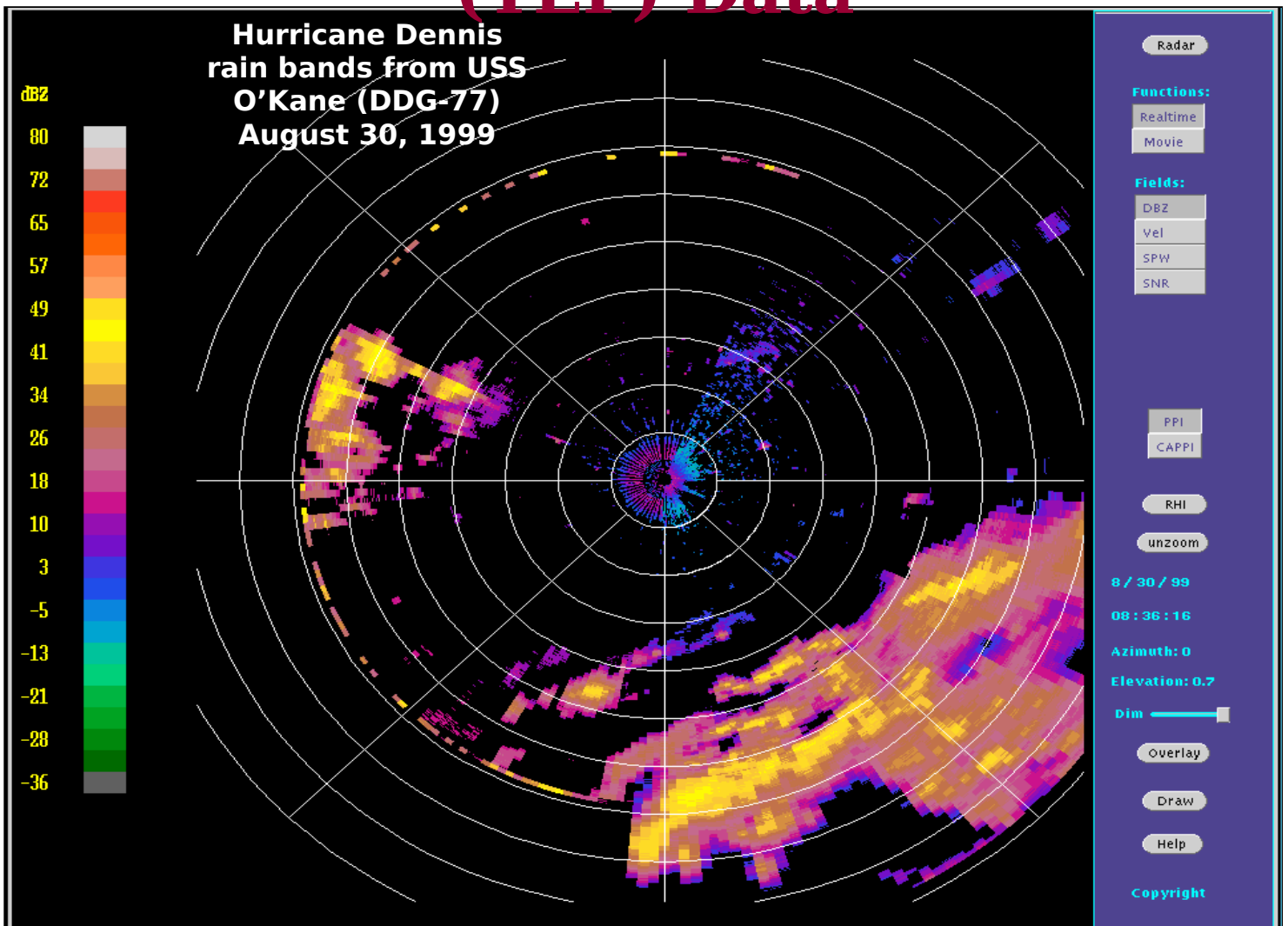
- Products will have to be QA'ed before displayed in front of the operators.
- Need to think about other shipboard radars
- More Information to the Operators, less "data".

Specific Warfighter Comments:

- 3.5 and Above:
  Radar Display with Areal Forecast, Radar Image, Optimum routing, Users Folders
- 3.0 and Above:
  Radar, Satellite, Pre-set Region, NOWCAST Display, 3-D (but no tools)
- 2.0 and Below:
  Verification, Stoplight (briefing tools), Too Busy slides (Meteogram, Missile Trajectory, etc)

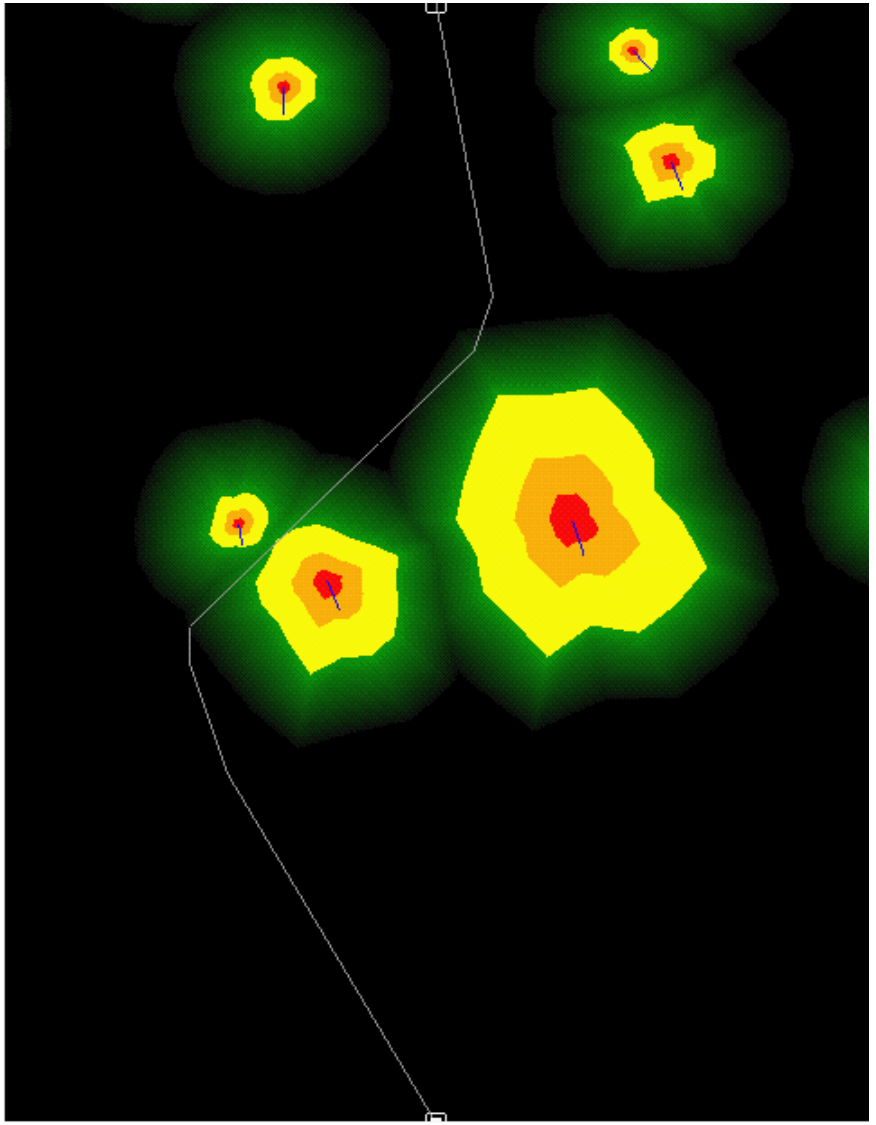

FOR THE NEXT GENERATION NAVY
NOWCAST
: detection: 16 Jun 2000 22:00:00 GMT
extrapolation storms: 16 Jun 2000 22:00:00 GMT; Extrapolation time: 16 Jun 2000 23:00:00 GMT
5-6
-4-
-3-
1-2

SPY-1 Tactical Environmental Processor (TEP) Data



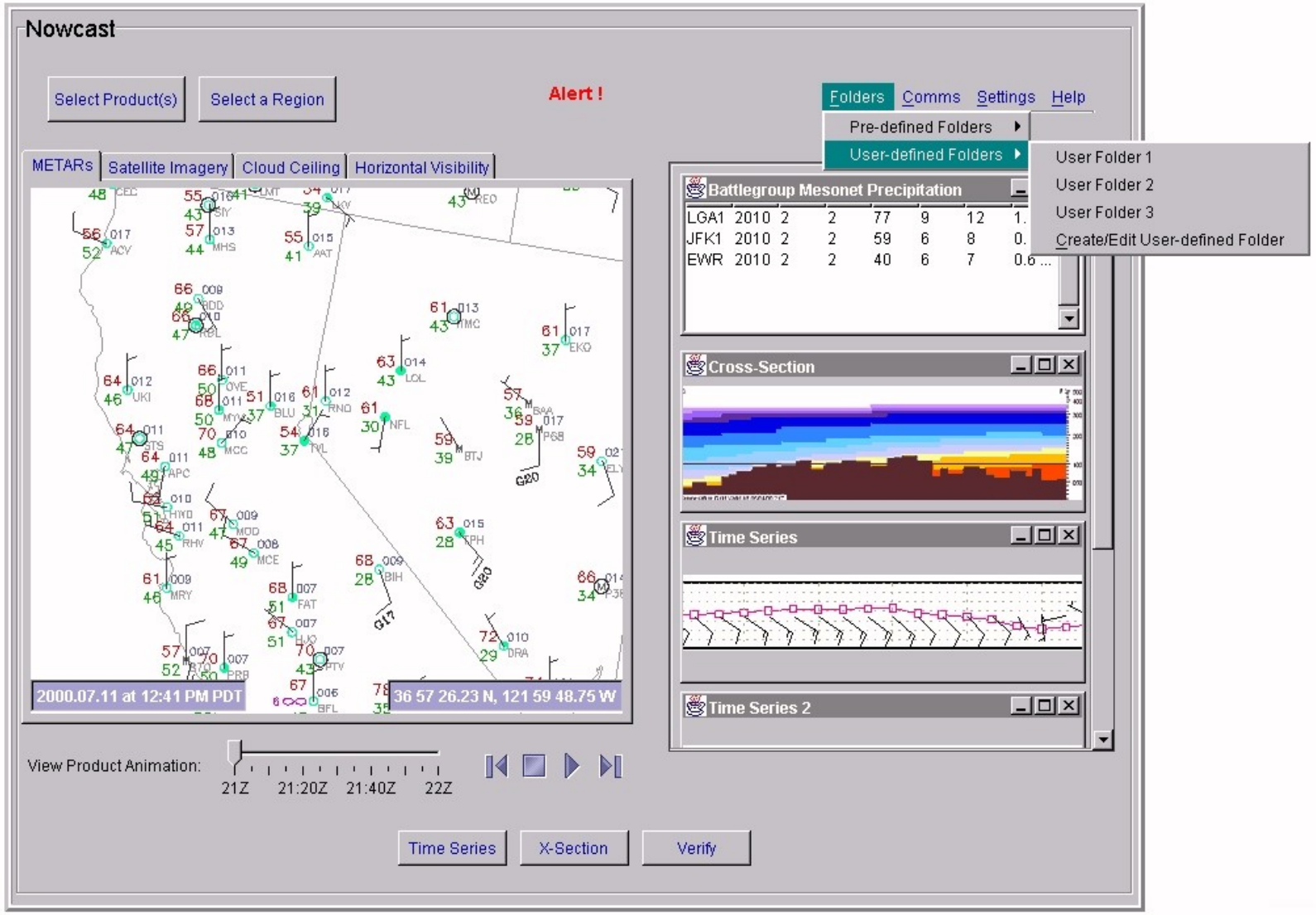
Optimum Trajectory

- **Dynamic weather impact areas to be avoided and/or exploited**
- **Moving ship**



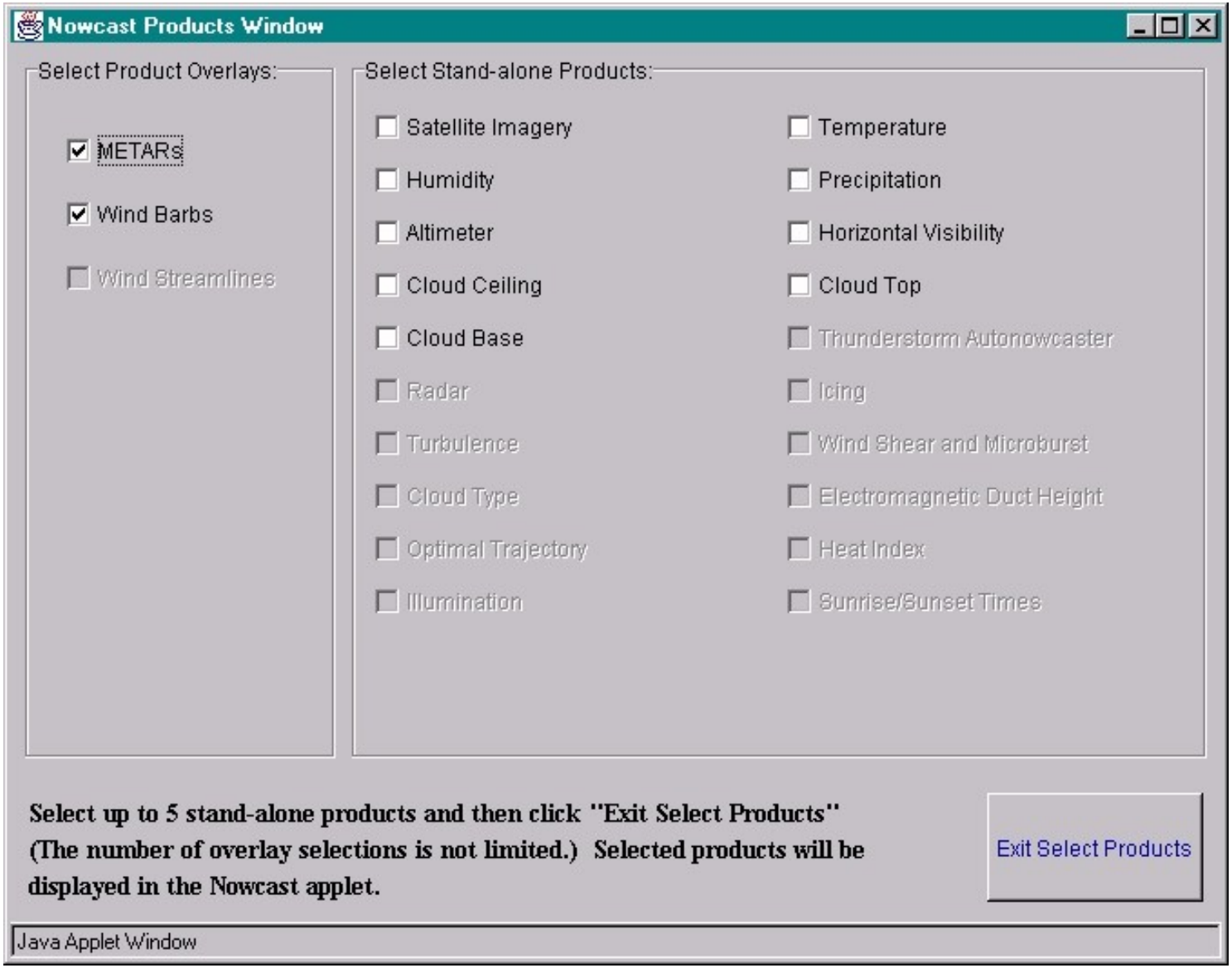
FOR THE NEXT GENERATION NAVY

NOWCAST

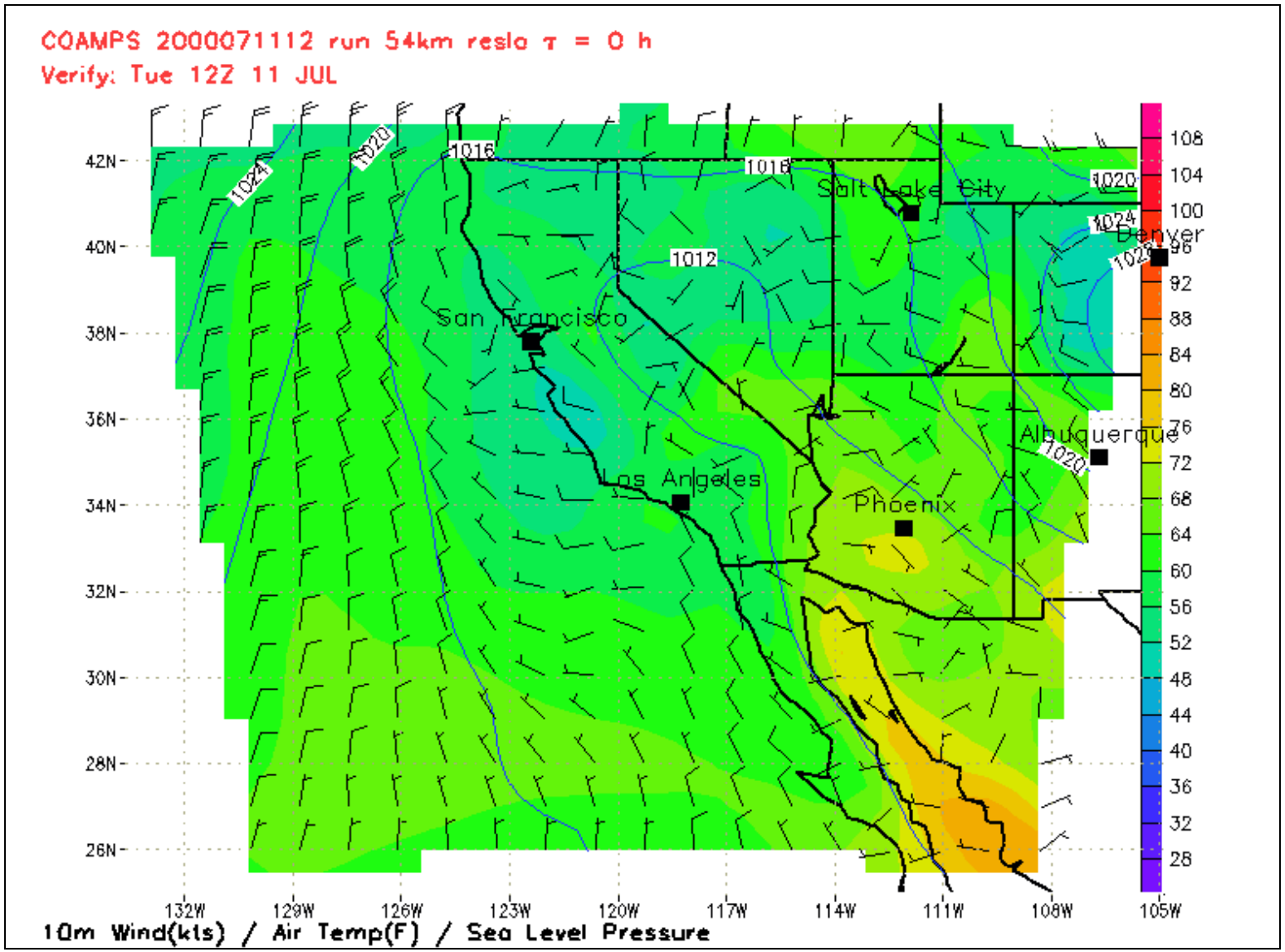


Specific METOC Personnel Comments:

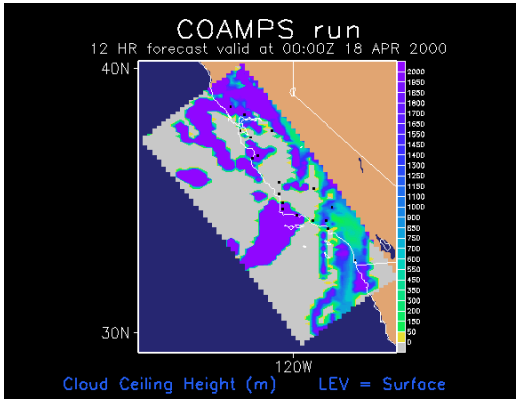
- 3.5 and Above:
  Radar Image, Interface with User Selections, Model output (COAMPS winds).
- 3.0 and Above:
  Radar product, Satellite, Model output (winds, wave, flight category, Meteogram), Stoplights, Pre-set regions
- 2.0 and Below:
  Verifications.

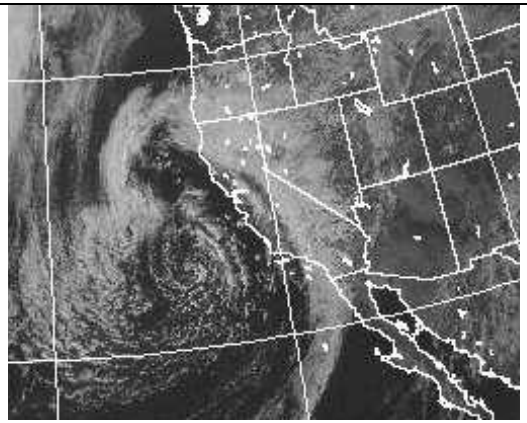

Nowcast Products Window
Select Product Overlays:
METARs
Wind Barbs
Wind Streamlines
Select Stand-alone Products:
Satellite Imagery
Humidity
Altimeter
Cloud Ceiling
Cloud Base
Radar
Turbulence
Cloud Type
Optimal Trajectory
Illumination
Temperature
Precipitation
Horizontal Visibility
Cloud Top
Thunderstorm Autonowcaster
Icing
Wind Shear and Microburst
Electromagnetic Duct Height
Heat Index
Sunrise/Sunset Times
Select up to 5 stand-alone products and then click "Exit Select Products"
(The number of overlay selections is not limited.) Selected products will be
displayed in the Nowcast applet.
Exit Select Products
Java Applet Window

MODEL ANALYSIS
WINDS, AIR TEMPERATURE AND SEA LEVEL PRESSURE

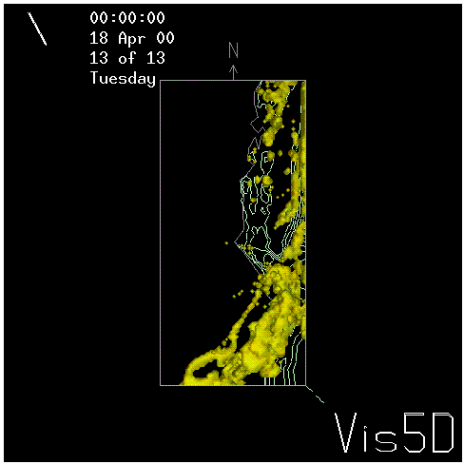


Potential Interactive Verification Procedure

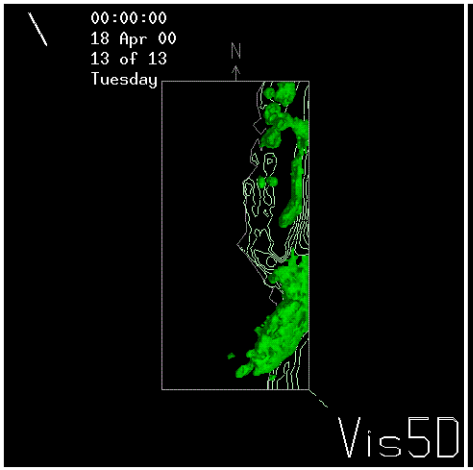




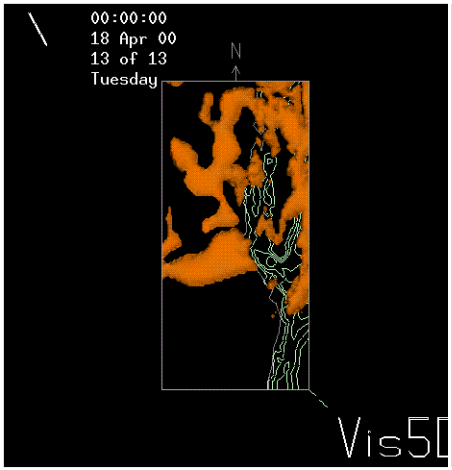
Cloud Water



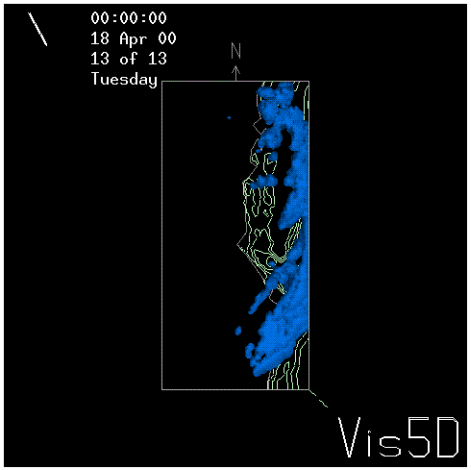
Rain Water



Ice

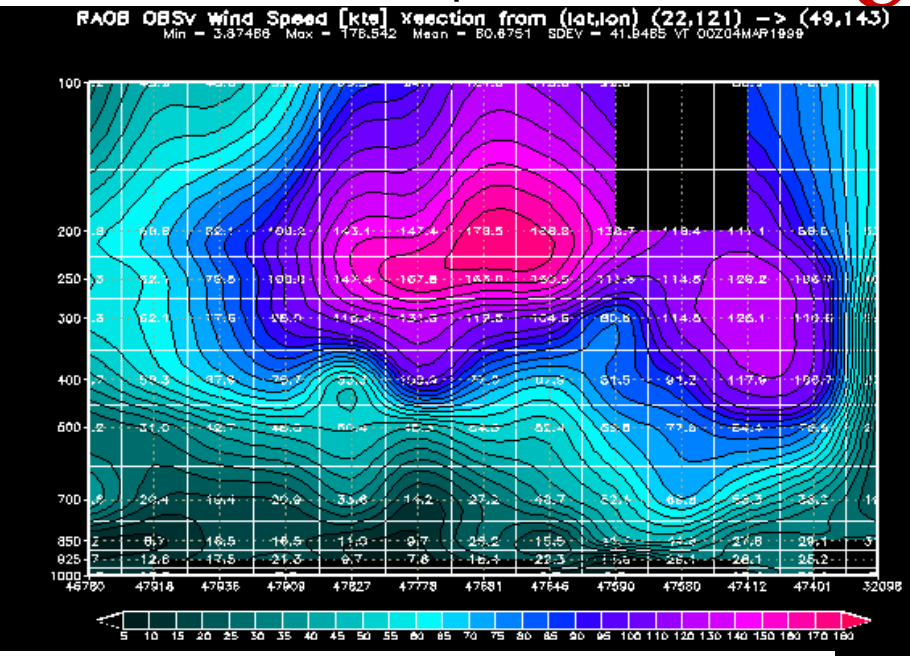


Snow

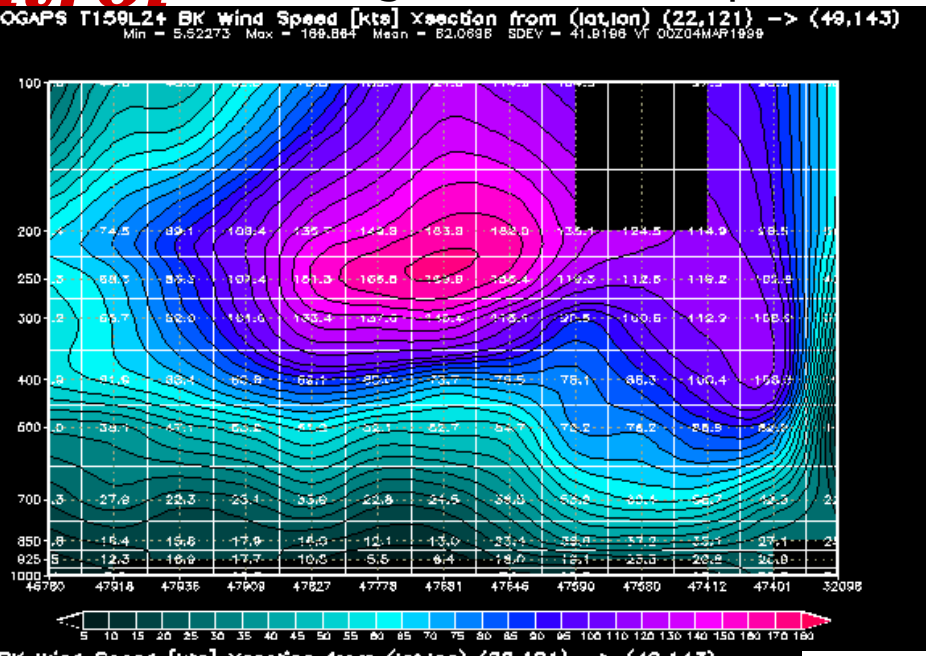


Data Monitoring and Quality Control

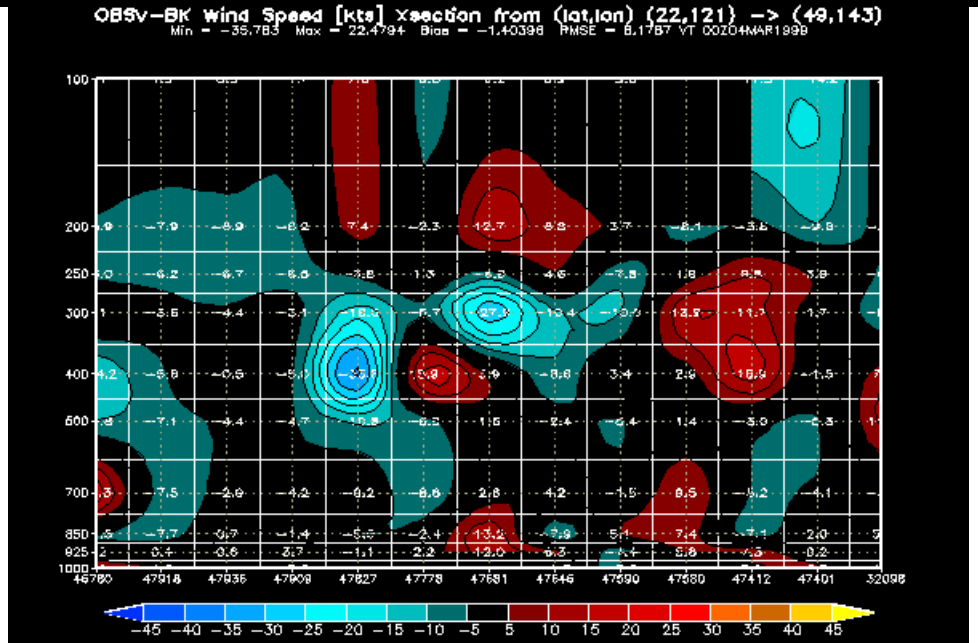
Observed Wind Speed Cross-Section



Forecast Background Wind Speed



Observation – Background Difference



Common Points:

- Radar (Imagery, Time Evolution, 60-min Forecast, Areal Forecast),
- Satellite Imagery,
- 3-D Visualization,
- Interface: (User Folder/Selection, Pre-set Regions)
- Flight Category Display.

Different Opinions:

- **Warfighters**
  - Optimum Routing
  - Radar (Zoom)
  - METOC Symbolic Display
- **METOC Personnel**
  - Model Output (winds, Meteogram, wave, precipitation)
  - Missile Trajectory
  - Stoplight (regular, IWEDA)

Summary (personal opinions):

- **Warfighters**
  - Simple display, tactical overlay
  - Current weather condition (no problem with just data)
  - Minimum manipulation
- **METOC Personnel**
  - Briefings requirements
  - More tools for details
  - Model output
  - For Verification Statistics for R&D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FOR THE NEXT GENERATION NAVY
NOWCAST